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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,381	08/08/2006	Sandrine Barranco	Q91866	2883

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
SHEARER, DANIEL R	

ART UNIT	PAPER NUMBER
3754	

NOTIFICATION DATE	DELIVERY MODE
04/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary	Application No.	Applicant(s)	
	10/559,381	BARRANCO ET AL.	
	Examiner	Art Unit	
	DANIEL R. SHEARER	3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 17 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims recite that the valve seal "is made of a one-piece integral structure" and "does not include a rigid insert". However, the original specification does not include any details of the structure of the seal, especially the absence of rigid components, but merely the components used to form the seal.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5, 8-11, 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,926,178 to Anderson in view of U.S. Patent No. 5,565,275 to Schmidt et al. (Schmidt).

Anderson shows an aerosol dispenser for dispensing a fluid product (Fig. 1, Col. 5, ll. 48-56, valve seal of Anderson operates in prior art device of Fig. 1), comprising a reservoir containing a fluid product and a propellant gas in the form of HFC-134a gas (Col. 4, ll. 49-55), a valve (1) mounted on the reservoir and a valve seal (112) including a rigid portion (130) consisting of polybutylteraphthalate (Col. 3, ll. 14-18) and a flexible portion (140) consisting of EPDM (Col. 3, ll. 55-56) bonded together by a two-stage injection molding process (Col. 4, ll. 3-5). Anderson fails to disclose the seal including mineral filler based upon quartz and kaolinite.

Schmidt discloses a process for making a seal (Col. 8, line 23) from a rigid component consisting of polybutyl teraphthalate (Col. 9, ll. 7-30) and a flexible component comprised of EPDM and a mineral filler sillitin (Col. 8, example table) in which the two components are bonded by a two part injection molding process and a vulcanizing process (Col. 7, ll. 1-16) that results in reduced manufacturing time, good resistance to solvents and strong bonding (Col. 8, ll. 6-16). Therefore, it would have

been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the valve seal of Anderson with the process and mineral fillers of Schmidt to reduce manufacturing time, improve resistance to solvent and improve bonding between the rigid and flexible components of the valve seal.

Regarding claims 2-5, the mineral filler Sillitin includes a mineralogical composition of between 65% and 95% of quartz and between 5% and 35% of kaolinite, a chemical composition of between 3% and 15% of Alumina and between 75% and 95% of Silica, a pH greater than 6 and an average particle size between 1.5 and 4 microns (See NPL, material data sheet for Z86).

Regarding claim 10, Anderson shows a valve element (108) sliding in a valve body with the interposition of the valve seal.

Regarding claim 17, Anderson discloses that the valve seal is made of a one-piece integral structure (Col. 4, ll. 3-5).

5. Claims 6 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Schmidt and U.S. Patent No. 5,085,005 to Yasukawa et al. (Yasukawa).

The Anderson-Schmidt combination shows all aspects of the applicant's invention as set forth in claim 1, but fails to disclose that the seal is subjected to a surface chlorination treatment. Yasukawa shows a seal (48) formed of diene rubber that is subjected to a chlorination treatment to reduce the sliding resistance of the seal (Col. 5, ll. 64-67 and Col. 5, ll. 1-6). Therefore it would have been obvious to one

having ordinary skill in the art at the time the invention was made to have subjected the seal of Anderson as modified by Schmidt to a chlorination treatment as taught by Yasukawa to reduce the sliding resistance of the seal.

Regarding claim 13, the claimed manufacturing process is inherently disclosed by the structure of Anderson as modified by Schmidt and Yasukawa as applied to claims 1 and 6 above.

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Schmidt and Yasukawa as applied to claims 6 and 13 above, and further in view of U.S. Patent No. 6,306,514 to Weikel et al. (Weikel).

Anderson as modified by Schmidt and Yasukawa shows all aspects of applicant's invention as set forth in claims 6 and 13 but fails to specifically disclose the surface chlorination treatment comprising a solution of water, hydrochloric acid and bleach. However, Weikel discloses that a surface chlorination treatment comprising a solution of water, hydrochloric acid and bleach is a known process to change the characteristics of rubber (Col. 1, ll. 50-59). It would have been obvious to one of ordinary skill in the art to have subjected the material of Anderson as modified by Schmidt with the treatment as taught by Weikel to achieve the desired characteristics for the material.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Schmidt as applied to claim 9 above, and further in view of EP 0969069 to Thomas et al. (Thomas).

The Anderson-Schmidt combination shows all aspects of the applicant's invention as set forth in claim 9, but fails to disclose that the reservoir contains alcohol, in particular ethanol. Thomas shows an aerosol container (Paragraph 0007) with a valve seal comprised of EPDM and kaolin (Paragraph 0021) that includes ethanol in the reservoir as a carrier liquid for the fluid or particulate product to be dispensed (Paragraph 0016). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the reservoir or Anderson as modified by Schmidt with ethanol as taught by Thomas to allow for dispensing of particulate products.

Response to Arguments

8. Applicant's arguments filed 2/12/2010 have been fully considered but they are not persuasive. The applicant argues that one of ordinary skill in the art would not consider Anderson or Schmidt to produce the features of independent claims 1 or 15 since the claims are directed toward improving classic seals made of one part without a rigid insert. Independent claims 1 and 15 do not recite any limitations to a classic seal without a rigid insert but rather to "a valve seal for an aerosol dispenser". One of ordinary skill in the art would look to all seals, such as the aerosol valve seal taught by Anderson, when looking to improve upon prior art valve seals.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL R. SHEARER whose telephone number is (571)270-7416. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571)272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. R. S./
Examiner, Art Unit 3754

/Kevin P. Shaver/
Supervisory Patent Examiner, Art Unit 3754